CREATION

Vol. 17 No. 4 November 2011

Journal of the CREATION SCIENCE MOVEMENT

Natural feedback

Feedback is one of the most important phenomena in our lives. Whether it is communication amongst a group, or our own body informing us of a need – such as pain, hunger, thirst, or sleep – we cannot live effectively without feedback. Without it, our lives would be the poorer - assuming we survived at all!

So important and useful is this function, that scientists are designing and incorporating feedback into non-biological materials. The design of computer programmes, for example, frequently includes the ability to detect, diagnose and self-correct problems. Now, scientists are seeking to further develop the use of self-healing technology by incorporating it into building materials.

According to a report on the BBC News website (http://www.bbc.co.uk/news/science-environment-15096393; accessed 01 October 2011), researchers at the University of Illinois, USA, have found a way to pump healing fluids around a material like the circulation of animal's blood. Prof Nancy Sottos and her team impregnated plastics with a fine network of channels, each less than 100 micrometres in diameter, which can be filled with liquid resins. These "micro-vascular" networks supply a healing agent to all areas, ready to be released whenever and wherever a crack appears. The ability to automatically detect and repair cracks in structures would, of

The so-called Wobbly Bridge over the River Thames - until it was repaired. Will future bridges be self-repairing? Image: sloopjohnb, www.rgbstock.com

course, have enormous application in the building industry.

As the inspiration for this technology comes from the natural world, one might well ask how these abilities arose in the animals and plants that live all around us. How could species survive to pass on their genes for millions of years whilst feedback mechanisms developed slowly and blindly within them?

Such feedback mechanisms are nothing if not sophisticated. Very widespread amongst living creatures is the circadian rhythm. This involves the periodic release on a 24 hour cycle of hormones that influence activities, and it is of course affected by the presence or absence of daylight.

The BBC News website (http://news.bbc.co.uk/1/hi/sci/tech/8565233.stm, accessed 12 September 2011) has also reported on a team from the universities of Manchester and Tromso that has been investigating the circadian rhythm in reindeer. These animals have to cope with the Arctic seasons of polar day, when the sun stays up all day, and polar night, when it does not rise. How does their circadian rhythm cope with such extremes?

Professor Andrew Loudon, from the University of Manchester, said that reindeer may have "abandoned use of the daily clock that drives biological rhythms" in order to survive these conditions. He and his colleagues studied reindeer living in Northern Norway, 500 km north of the Arctic circle. Here there are 15 weeks of continuous daylight in summer and eight weeks during the winter when the Sun does not appear over the horizon. They investigated levels of the hormone melatonin - important in the sleep/wake cycle - in the reindeer's blood. They found that there was no natural internal rhythm of melatonin release into the blood; the hormone simply responded to the cycle of light and dark. He commented that "Such daily clocks may be positively a hindrance in environments where there is no reliable light/dark cycle for much of the year."

One must ask, if it was necessary for a whole team of scientists to ***design*** a relatively simple process, such as the self-healing of cracks in a building, how could the much more complex and flexible circadian rhythm have come into existence purely by chance? The reindeer's continued existence is surely living evidence of a wise Creator, who designed this animal complete with all the necessary capabilities to survive in extreme conditions. Evolution? No chance!

Extraordinary partners

Small Things Considered, a Web blog about micro-organisms, had a particularly fascinating entry for 26 September (http://schaechter.asmblog.org/schaechter/, accessed 21 October) that reported on the extraordinary lifestyle of the mealybug *Planococcus citri*. This little insect is a pest on citrus crops, where it sucks the phloem sap of its hostplant.

Phloem is a poor source of amino acids, the building blocks of proteins, essential for the development of all animals. To make up for this shortfall the mealybug plays host to an endosymbiotic bacterium called *Tremblaya princeps* which bio-synthesizes the amino acids needed. Or does it?

Amazingly, *Tremblaya princeps* has the smallest of all known cellular genomes, lacking many of the genes that one would consider necessary for survival. As the author of the article states, "The genome is really scrubby and lacks genes that one would think essential, such as those encoding aminoacyl tRNA synthetases (a first among bacteria!) and release factors".

So how does it survive? Here's the nub: the *Tremblaya princeps* bacterium is itself a host to a still smaller bacterium! Called *Moranella endobia*, this minute bacterium, lives inside *Tremblaya princeps* and supplies the "missing bits" to complete a number of the necessary metabolic pathways. Although so much smaller than its partner, *Moranella endobia* has a genome four times larger, a bizarre state of affairs. As the author comments, "Although *Tremblaya* devotes some 22% of its genome to amino acid biosynthesis, it does not have the genes for any complete pathway. Many of the missing genes are found in the *Moranella*, which doesn't have the genes for entire pathways either. So, these genomes must work together. For example, the synthesis of tryptophan and threonine requires genes from both bacteria. In addition, pathways for phenylalanine, arginine, and isoleucine synthesis may require genes from the mealybug as well.".

The author appropriately calls these shared metabolic pathways a game of chemical ping-pong. But how are they governed? What co-ordinates the activities of these chemical processes and the distribution of their products? What are the feedback mechanisms?

And all this is supposed to have arisen by sheer blind chance! Really?

Cuttings & Comments from New Scientist

by Dr David Rosevear

2 July p.17 Python genes get frantic after meals

Pythons gorge themselves on large prey such as a whole goat, but the meals sustain them for long periods. In between blow-outs, they conserve energy by moth-balling their innards, **"substantially shrinking most of their internal organs. Then after a meal, their intestines more than double in mass, and the heart and kidneys increase by half. This involves a huge amount of genetic turmoil."**

Researchers from the University of Colorado measured gene activities in the organs of Burmese pythons before, and immediately after a feast and found that the snakes switched on about 1800 dormant genes within 24 hours of swallowing the meal. Similar activation also occurs in the liver, kidney and intestines.

The work was reported at the *Society for the Study of Evolution* meeting in Oklahoma.

But is it feasible that this enlarging and then shrinking of vital organs, together with the re-activation followed by

Python reticulatus. Image: Mariluna, Wikipedia, under Creative Commons Attribution-Share Alike 3.0 Unported licence.

mothballing of so many genes, has occurred, by chance, in this concerted way with every big meal? Supposing the wrong organs shrank or the wrong genes were switched off! Shrinking the lungs and switching off the genes regulating respiration would leave Monty Python as sick as a parrot.

This is an obvious case of intelligent design, not chance evolution.

9 July p.40 Lab rats

"Stealing, drug-taking and downright badness: Michael Brooks tears apart the stereotype of the rational, responsible scientist." People in lab coats are as vulnerable to faking and cutting corners to enhance their reputations and forward their careers as members of any profession. Brooks cites many interesting cases from Einstein to Crick and Watson, although he doesn't mention the many examples from evolutionists (fish gills, peppered moths, etc.) **"Newton invented explanations, so did Einstein, and a significant proportion of today's scientists find ways to do it too. In a 2005 survey published in *Nature* under the title 'Scientists Behaving Badly', a third of respondents admitted having committed scientific misconduct in the previous three years (vol. 435, p.737)."**

16 July p.12 Human history recorded in a single genome

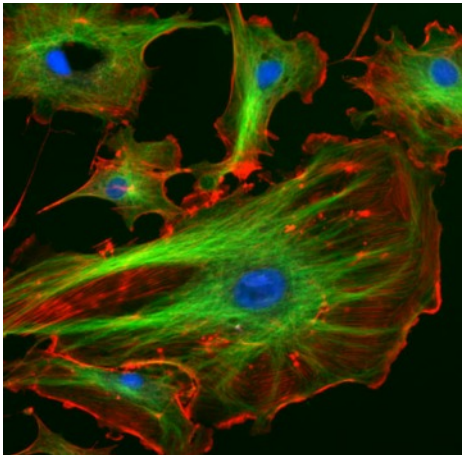
"Analysing the ways that mitochondrial DNA sequences differ across a large number of living people has helped to establish prehistoric population trends, but this record stretches back only 200,000 years to the point where all humans alive today shared a common female ancestor." Using the few complete human genomes available, two workers looked at how alleles (the 2 copies of each gene from mum and dad) differ within a genome. **"By reading thousands of alleles and estimating mutation rates, the duo can work out the separation date for each allele and calculate past population sizes… Durbin and Li analysed seven complete sequences: one each from China and Korea, three of European origin and two from West Africa. The pair concludes that European and Chinese populations both suffered a severe bottleneck between 10,000 and 60,000 years ago, while African populations endured a milder bottleneck at that time."** However, as reported in *Nature Genetics* vol. 15 no.4 1997, p.363-7 a team of geneticists found the rate of mutation of mitochondrial DNA is twenty times higher than expected, and the date for 'mitochondrial Eve' is only about 10,000 years ago rather than 200,000 years.

The population bottleneck was nearer 4,000 than 60,000 years ago and was the result of the flood in the days of Noah (Genesis 9:19).

16 July p.38 Who are you calling simple?

Recent discoveries are challenging ideas about the nature of 'early life'. Simple cells are anything but simple.

Cells have an **"internal skeleton or cytoskeleton, a scaffold that is continually adjusted by adding or taking away segments. It not only maintains a cell's shape, it even functions as a railway for transporting molecules around the cell and also ensures everything ends up in the right place when cells divide… in recent years it has emerged that many bacteria and archaea – the other branch of simple cells – have their own versions of the proteins that form the cytoskeleton… The cytoskeleton also helps anchor structures such as the whip-like flagella that some bacteria use to swim."**



Bovine endothelial cells under the microscope. Nuclei are stained blue, microtubules of the cytoskeleton are green and actin filaments red. Image in the public domain.

Many bacteria have genes for making micro-compartments that concentrate reactants in order to speed up chemical reactions, or that store needed chemicals.
Most bacteria are too small to be seen by the unaided eye, though a few are up to 0.7mm long with **"tens to hundreds of thousands of copies"** of their DNA.
Bacteria communicate with each other by releasing chemical signals.
If these cells that evolutionists have placed at the bottom of their 'tree of life' are too complex to have arisen by chance, they must have been intelligently designed. They are not the simple bags of protoplasm that Darwin imagined.

23 July p.3 Where did we come from?
Nearly 20 pages of this week's *New Scientist* are taken up by **"The Existential Issue – How could our cosmos have come from nothing? Why is the universe just right for life? Are we utterly alone? What's the origin of my consciousness? How do I know that everybody else isn't a zombie? Am I a hologram? How do I even know I exist? Will humans evolve into another species? Are there parallel universes? How will it all end?"**
This editorial page is written by celebrity researcher, Cambridge mathematician and theoretical physicist Stephen Hawking. He begins by telling us about a creation myth from central Africa about a god called Bumba who vomited out the sun, moon and stars. He goes on to put us right with a scientific view: **"The universe started off with a big bang, expanding faster and faster. This is called inflation and it turns out that inflation in the early cosmos was much more rapid: the universe doubled in size many times in a tiny fraction of a second… The variations mean that some regions will be expanding slightly less fast. The slower regions eventually stop expanding and collapse again to form galaxies and stars. And in turn solar systems. We owe our existence to these variations."**
There is no more evidence for this myth about a big bang and inflation than for a Bumba with stomach ache.

23 July pp.27-43 The existential issue
Again the scenario of the big bang is presented as science, with the Earth eventually giving birth to life. **"The probability of that sequence of events is absolutely minuscule, and yet it still happened."** So it's a matter of faith.
"Why is there something rather than nothing? …After all, some basic physics suggests that you and the rest of the universe are overwhelmingly unlikely to exist. The second law of thermodynamics …Given this law, it is hard to see how nothing could ever be turned into something, let alone something as big as the universe."

Apparently although entropy is against the idea, symmetry isn't! That settles it, then.

"Are we alone? …

"The star we orbit is just one of 10,000 billion billion in the cosmos. Surely there is another blue dot out there – a home to intelligent life like us? The simple fact is, we don't know.

"Some astronomers believe life is almost inevitable on any habitable planet… A few believe that our planet is unique… For 50 years astronomers have swept the skies with radio telescopes for any hint of a message. So far, nothing."

"Why me?

"Think for a moment about a time before you were born. Where were you? Now think ahead to a time after your death. Where will you be? The brutal answer is: nowhere. Your life is a brief foray on Earth that started one day for no reason and will inevitably end." Such thinking leads naturally to the practices of abortion and euthanasia.

"What are the odds of my consciousness existing at all? How can such a thing emerge from nothingness? And what is consciousness, anyway?"

How reassuring to know that the Lord took me from my mother's womb and that my name was written in the Lamb's book of life from the foundation of the world. How disconcerting for these agnostics to hear that it is appointed unto man once to die and then the Judgment.

"Why is the universe just right?

"It has been called the Goldilocks paradox… Such instances of the fine-tuning of the laws of physics seem to abound. Many of the essential parameters of nature – the strengths of fundamental forces and the masses of fundamental particles – seem fixed at values that are 'just right' for life to emerge. A whisker either way and we would not be here. It is as if the universe was made for us. What are we to make of this? One possibility is that the universe was fine-tuned by a supreme being – God. Although many people like this explanation, scientists see no evidence that a supernatural entity is orchestrating the cosmos… The most likely explanation for fine-tuning is possibly even more mind-expanding: that our universe is merely one of a vast ensemble of universes, each with different laws of physics. We find ourselves in one with laws suitable for life because, again, how could it be any other way?" Yet, if our universe is 'overwhelmingly unlikely to exist' (see above), how much more improbable would be a vast ensemble of universes, each a little bit different?

"How do I know that I exist?"

Here it is argued by an Oxford philosopher that **"it is entirely plausible that our reality is in fact a simulation run by entities from a more advanced civilisation."**

So although science sees no evidence for a supernatural entity orchestrating the cosmos (see above), it is happy to toy with the idea of entities from an advanced civilisation running a simulation that includes us, so long as it isn't called 'God'.

"If anything, brain scanning has undermined Descartes' maxim [cogito ergo sum]. **You, too, might be a zombie. 'I happen to be one myself,' says Stanford University philosopher Paul Shokowski. 'And so, even if you don't realise it, are you.'"**

G.K. Chesterton is reputed to have said that when people do not believe the Bible, it is not the case that they believe nothing, but that they will believe anything.

"What happens when we become obsolete?

"Artificial intelligences (AIs) are expected to become smarter than us before 2050… One distinct possibility is that AIs will exterminate us, which seems especially likely if the first are robots spawned in military labs."

"How will it all end?

"In recent years physicists have been peering deep into the tea leaves of time to try to foretell our ultimate fate. Will the universe be finished off by a big freeze, a big rip, a big crunch… or a big something else?"

For the believer, eye has not seen, nor ear heard, neither have entered into the heart of man, the things which God has prepared for them that love Him.

See **13 August p.30 Letters** below for one reader's comment on this article.

30 July p.10 Archaeopteryx knocked off its perch

A fossil has been bought in China that is similar to the *Archaeopteryx* fossils first found in Germany in 1861, and claimed by evolutionists to be the earliest bird.

Xiaotingia zhengi is claimed to be a feathered dinosaur, but similar to Archy. Unlike the German fossils which have very definite asymmetric flight feather impressions, this new one's feathers are not at all evident from the photo. A few years ago your reviewer visited the London Natural History Museum where a feathered dinosaur was being exhibited. Looking at the fossil under a microscope, all I could make out were fibres that might have been the remains of skin. The room where the fossil was exhibited was festooned with real feathers, as though that was relevant.

Archaeopteryx is now thought to be a theropod dinosaur, a deinonychosaur.

However, studies of the skull of Archy a few years ago showed that it had a brain case, eye sockets, ear labyrinths and other features also found in today's birds, suiting it for an avian acrobatic life. It also had some hooks on the wings, in common with just a few birds today, and teeth, a feature not found now though shared with some fossil birds.

One wonders whether the chief aim of those who revise these classifications is to make a neat evolutionary story, but that is a personal view.

6 August Instant Expert 14 – Evolution of selfless behaviour

The suicidal sting of a honeybee defends the colony but is fatal for the individual. A soldier going to the aid of a stricken comrade puts his own life in jeopardy, but such action is beneficial to the platoon. Here it is proposed that natural selection can act between groups rather than within groups for the overall good. Such theories are preferable to the **"lingering idea that nature was the creation of a benign god."** Opinions of evolutionary biologists have oscillated between these ideas since Darwin's day. The new consensus is that social groups can be regarded as single organisms that can be selected at the expense of competing individuals within

Regarding flimsy evolutionary theories of the rise of social behaviour of honeybees as being somehow preferable to belief in a Creator reveals much more about the attitude of the adherent than it does to explain the bees! Image: M. Flick-Buijs, www.rgbstock.com

the group. Would Dickens' Sidney Carton have agreed?

13 August p16 Sacrificial guts and boosted brains

The 'expensive tissue hypothesis' suggests that in order for us to evolve our powerful brains, early man had to free up energy by switching to rich foods like nuts and meat that need less energy to digest, or possibly by learning to cook. Our guts might thereupon shrink. However, no correlation has been found between large brains and small guts in 'related species'. Perhaps man was created replete with a powerful brain.

13 August p.30 Letters

This is the response of one *NS* reader, Larry Constantine of Massachusetts, to the article 'The existential issue' reviewed above:

Your excellent existential issue (23 July) is most revealing in what it ignores. It exposes modern cosmology as a sophisticated shell game using advanced mathematics to generate infinite regressions of explanations that explain nothing.

Problems are solved by positing ever more perplexing problems that multiply like angels on the head of a pin. Accounting for our universe by postulating infinite parallel universes or explaining the big bang as the collision of 'branes' in a higher dimensional 'bulk' are not accounts at all, but merely ignorance swept under a cosmic rug – a rug that itself demands explanation but is in turn buried under still more rugs.

Modern physics would do well to get back to basics and take a lesson from Occam, whose razor is sadly missing in a science that fills holes in its theories and addresses anomalous data by invoking ever more complicated unseen forces, undiscovered particles or invisible dimensions. Simplify, simplify.

On the smaller and more personal scale, neuroscience fares no better when it dismisses the self-awareness and consciousness as illusory while ignoring the elephant in the room. Something must be experiencing the illusion, something is being fooled into thinking that it is and that it is aware. What do they propose to call that deluded something? The self, perhaps? More Russian dolls.

Swallowing up a Russian doll inside an ever-expanding series of larger ones doesn't answer the question of who designed the original one. Image: J. Scheijen, www.rgbstock.com

13 August p.32 Dawn of the living

"Life must have begun with a simple replicator – but what was it, and how did it work?

Today's living things use the double helix molecule DNA that carries information coded in the sequence of its nucleotides. It makes proteins that catalyse vital syntheses in living cells. It self-replicates with the help of more proteins. However, it is conceded that DNA is too complex to have arisen by chance, so it is hypothesised that the single-stranded cousin molecule, RNA, was the earliest replicator.

"This was the dawn of evolution. Once the first self-replicating entities appeared,

natural selection kicked in, favouring any offspring with variations that made them better at replicating themselves. [Hypothetical beneficial mutations] **Soon the first simple cells appeared."** Just like that! Cells are never simple. They are comprised of scores of inter-dependent parts and processes.

But admittedly there are difficulties. **"This idea has always had a huge problem, though – there was no known way by which RNA molecules could have formed on the primordial Earth… The information needed to make proteins is stored in DNA molecules. You can't make new proteins without DNA, and you can't make new DNA without proteins."**

In the 1960s it was discovered that RNA could fold itself like proteins, though not into such complex structures. If RNA, as well as carrying coded information, could act like a protein, catalysing its own replication, it could itself do much of what today is accomplished by DNA plus proteins. Though RNA is less versatile than DNA, and less stable, might it not be a jack of all trades?

Laboratory experiments suggested that RNA might have formed spontaneously. Sugars, bases and phosphate might arise naturally, too. However, **"there does not seem to be any way to join the components** [of RNA] **without specialist enzymes. Because of the shape of the molecules, it is almost impossible for the sugar to join to a base, and even when it does happen, the combined molecule quickly breaks apart… The issue isn't entirely solved yet. RNA has four different nucleotides, and so far Sutherland has only produced two of them. However, he says he is 'closing in' on the other two. If he succeeds, it will show that the spontaneous formation of an RNA replicator is not so improbable after all, and that the first replicator was most likely made of RNA."** If Sutherland finally succeeds, it will rather show that a clever, skilful chemist has *created* a complex biomolecule.

"How did the transition to DNA and proteins, and the development of the genetic code, occur?" [It couldn't.]

"One day soon, Sutherland says, someone will fill a container with a mix of primordial chemicals, keep it under the right conditions, and watch life emerge. 'That experiment will be done.'"

But don't hold your breath!

20 August p.6 Chicken revisits its dinosaur past

"Chickens share a common ancestor with alligators and are descended from dinosaurs, raising the question of how they and other birds switched from snouts to beaks." Note the unwarranted assumption!

Chicken and alligator eggs with their embryos look a bit alike, despite the very different information they each contain. It is therefore reasoned that if one meddles with the development process of the chicken egg, one might hatch a bird with some alligator features. Signalling molecules for snout development in gators are found along either side of the face, whereas the corresponding growth factors in chick embryos occur at both the sides and centre of the developing face. A bead containing proteins that deactivate the signalling molecules was inserted into the egg around day 5, and this stopped the middle part of the beak being expressed.

"'It looks exactly like a snout looks in an alligator [at this stage]', says Abzhanov."

"Long term Abzhanov dreams of turning chickens into Maniraptora, small

dinosaurs thought to have given rise to the 10,000 species of birds around today." Of course, a chicken's feeding habits require a beak rather than a snout. The egg wasn't allowed to hatch.

The Editor comments on p.3 that **"As a bonus, this research undermines creationist arguments about the impossibility of large-scale evolutionary changes. Who could possibly argue with that?"** He hasn't realised that this has nothing to do with evolution! For doctrinaire reasons, scientists are still trying to deny the Creator by pursuing Huxley's dream of reptiles evolving into birds, that he expressed well over a century ago.

20 August p.32 Sense and Sense ability

"The human body gives us a small glimpse of the world compared with the extraordinary senses that have evolved elsewhere in the animal kingdom." [Note the assumption, again.]

Flowers have ultraviolet-reflecting strips that guide the way to the nectar. Bees' eyes can see using the ultra-violet range of the light spectrum, enabling them to quickly find the nectar. Bees' compound eyes also enable them to see the pattern of polarised light that acts as a compass to aid them to find direction. Some insects and birds have five or even six different kinds of colour receptors so that they see colours that we cannot even imagine.

Many creatures can navigate using their own internal magnetic compass. These include pigeons and sea turtles. The iron oxide mineral, magnetite, is also found in some bacteria, and in the noses of salmon and rainbow trout.

The article describes the sophisticated echolocation system found in bats that enables them to pick up flying insects in the dark. Their clicks and squeaks have been measured at up to 120 decibels. **"That's the volume of a passing ambulance siren. Thankfully they do it in ultrasound, above the range of human hearing."**

A dog nose's sense of smell is vastly superior to our own. **"Once inside the nose the air swirls around up to 300 million olfactory receptors, compared with our measly 6 million. Even if humans could gather this information, our brains wouldn't know what to do with it."** The canine olfactory cortex takes up 12.5 per cent of its brain mass compared with less than 1 per cent of ours. Dogs can pick up much more detailed information about the great unwashed public than we can, which is not to be sniffed at.

As well as using their eyes, some snakes such as pythons can track their prey using infrared radiation that can detect body heat from up to a metre away.

Mimulus flower photographed under visible light (left) and ultraviolet light (right). Note the dark "nectar guide" in the latter, invisible to human sight but easily spotted by bees. Image: Wikipedia, under Creative Commons Attribution-Share Alike 2.0 licence.

So did these remarkable senses evolve by chance over time or are they the product of intelligent design? How would the bee gather nectar before it evolved the ability to use ultraviolet light and the flower petals reflected that range of the electro-magnetic spectrum? And at the other extreme of the visible spectrum, how would a pit viper find its hot dinner without its infrared sensors? Homing pigeons would be lost before they evolved magnetite crystals in their skulls. The 'earliest' fossil bat has structures associated with echolocation as in today's bats.

As for ourselves, we have the senses appropriate for our own way of life. We don't need to gather nectar or flying insects. We have brains to invent navigational aids. Above all we have a spiritual sense whereby we can communicate with that intelligent Designer.

27 August p.32 Heal thyself

This article discusses the ability of the human mind to aid healing, with particular reference to the placebo effect. [A sugar pill in place of a medicine can have a psychological effect.] Sub-headings are *Fool yourself, Think positive, Trust people, Meditate, hypnotise yourself,* and on p.36, *Know your purpose*. In this last section we read: **"In a study of 50 people with advanced lung cancer, those judged by their doctors to have high 'spiritual faith' responded better to chemotherapy and survived longer. Over 40 per cent were still alive after three years, compared with less than 10 per cent of those judged to have little faith.**

"There are thousands of studies purporting to show a link between some aspect of religion – such as attending church or praying – and better health. Religion has been associated with lower rates of cardiovascular disease, stroke, blood pressure and metabolic disorders, better immune functioning, improved outcomes for infections such as HIV and meningitis, and lower risk of developing cancer." It is pointed out that religious folk may have a lower-risk lifestyle, and that churches offer social support, which possibly helps to explain these facts.

"Even if this link between religion and better health is genuine, there is no need to invoke divine intervention to explain it. Some workers attribute it to the placebo effect – trusting that some deity or other will heal you may be just as effective as belief in a drug or doctor." In the case of blind Bartimæus (Mark 10), the placebo effect worked instantaneously! Moreover, the advantages of '*spiritual* faith', as the epithet implies, are not limited to bodily health.

3 September p.7 Lizard genome read

"The first genome sequence of a lizard has revealed rapid evolution in genes linked with egg production. Genes in immature eggs from *Anolis corolinensis* show how animals evolved the capacity to lay eggs on land rather than in water." Really! If lizards had genes enabling it to lay eggs in water, the young would drown. Genes from the present day lizards tell us that the eggs are right for a terrestrial lizard, while genes in fish eggs are right for an aquatic life. Making assumptions about fish-to-amphibian evolution and dating do not constitute proof of rapid evolution.

3 September p.11 Brain chemistry existed long before the brain

Swiss scientists have studied a pair of essential neural proteins found in our brains. These are present in every nerve cell and control the release of the chemicals which neurons use to talk to each other, called neurotransmitters. The same

proteins have also now been found present in choanoflagellates, single-celled marine creatures. The interaction between the proteins (that depends upon their shapes and active groups) is the same in these comparatively simple creatures as in brain neurons, although they have neither brains nor nerves. The article claims this as **"evidence that essential brain components evolved in choanoflagellates before multicellular life appeared."** However it concedes that **"there is no evidence that they can make neuro-transmitters, or that they wire up into networks as neurons do."**

All we can deduce from these observations is that the same proteins may be found in different creatures. The assumption about evolution, yet again, is not justified.

3 September p.14 Ancient resistance to antibiotics found

Bacterial infections have been treated with antibiotics for more than half a century since Fleming discovered penicillin. However, some bacteria, known as superbugs, seem to develop resistance to the antibiotic. This has been claimed as an example of evolution. Creationists claim that a few of the bacteria already had the genes for antibiotic resistance, and once the treatment had eliminated most bacteria, the resistant ones multiplied. This report proves that our explanation is right.

Canadian researchers took ice cores from the permafrost and analysed DNA from their centres. This eliminated the possibility of contamination by modern DNA. They found DNA from mammoths, bison and other species, and with them found a variety of bacterial antibiotic-resistant genes. **"Sure enough, they found several, including those for resistance to penicillin, tetracycline and vancomycin - conclusive proof that these genes truly pre-date medical antibiotics."**

Woolly mammoths harboured bacteria with resistance to antibiotics - an elephant-sized problem? Image: WolfmanSF, Wikipedia, under Creative Commons Attribution-Share Alike 3.0 Unported licence.

10 September p.51 Greek geek

Book review of *The First Scientist: Anaximander and his legacy* by Carlo Ravelli.

"According to many accounts, Anaximander was the first to suggest that the Earth floats in space; to put forth the notion that all living creatures are descended from a common ancestor; and that – heaven forbid – meteorological occurrences were not the product of the gods. Such stories suggest that Anaximander would have made a fine scientist."

According to Wikipedia, Anaximander lived 610-546BC. This is quite a while after the biblical character Job, who lived about 2000BC. He wrote (Job 26:7) that God 'stretches out the north over the empty place, and hangs the earth upon nothing'. Later Isaiah, who wrote from about 740 to 680BC, also before Anaximander, said (Isaiah 40:22) that it is God who sits on the sphere of the earth.

"All that remains of Anaximander's original work are four lines of text."

Job's and Isaiah's works have fared rather better.

17 September p.5 Stamp out anti-science

This editorial has been written by Nobel laureate and president of the Royal Society Paul Nurse. He laments the fact the some Republican candidates for the US presidency have expressed support for Intelligent Design, disbelief in the theory of evolution and doubts that climate change is man-made rather than natural, cyclical environmental trends. **"They ignore the consensus opinions of experts."**

"We have to ensure that science is being taught – not pseudo-science. With the rise of free and faith schools and the academies in the UK, measures need to be put in place to safeguard science classes."

Beware the thought police!

17 September p.19 Glimpse of ape brain becoming human

"Two years after its discovery in South Africa, a 2-million-year-old hominin species has revealed a hodgepodge of anatomical features that suggest it was halfway between our ape-like ancestors and more recent human-like kin."

Somehow they deduced that these two australopithecines **"walked on two legs, but they were nothing special up-top… Although the brain was small, Carlson says its orbitofrontal region, just behind the eyes, was a different shape to those of other australopiths and apes. It may have been rewired into a more human-like design."**

Design?

17 September p.56 A Dawkins family affair

Book review of Richard Dawkins *The Magic of Reality*, a teen-friendly rewrite of his *The God Delusion*.

Dawkins is unabashedly out to prevent what he sees as the brainwashing of children into religion, by brainwashing them into atheism. Millstone, neck and the depth of the sea spring to mind.

The book is described here as a clear 'scientific' rewrite of the contents of *Genesis*. Dawkins asks 'who was the first person?' and 'when and how did everything begin?' He then supplies imaginative answers from ancient myths from around the world – among them prominent tales from the Bible. **"Finally he demolishes these myths by supplying the 'real' answers provided by science."**

The review is followed by two eulogies written by Phoebe, aged 20, and Callum, aged 13.

If an uncreated God creating everything in the space of six days, and a fallen angel disguised as a serpent speaking to the first

woman seems unscientific because they are miraculous, what should we think of nothing creating everything 13.6 billion years ago, where 'everything' includes an infinity of parallel universes, each with a different set of scientific laws and constants. Dawkins warns against accepting Jesus' 'water into wine' feat as a miraculous, but as a challenge we should rise to. **"'The truth is more magical than any myth or made-up mystery or miracle', he writes. 'Science has its own magic: the magic of reality.'"** The big bang and evolution of species are certainly science's magic, but they are a long way from reality.

24 September p.21 'Hairy' dinosaurs lived alongside feathered birds.

A photo shows a piece of amber from Alberta, Canada with lots of hair-like fibres embedded in it. Several pieces of amber had lain in a museum drawer for 15 years before someone came up with this imaginative interpretation. As well as the fibres, some pieces of amber contained feathers like the flight feathers of today's birds. **"The dinosaur feathers are primitive, thin filaments that look similar to mammalian hair but are much thinner and lack the scales that cover ordinary hair."** This is said to be **"proof"** that birds and feathered dinosaurs had co-existed in a late Cretaceous period. The presence of the dinosaurs is inferred rather than observed.

Possibly some dinosaurs had hairs on their bodies for insulation, though some commentators have likened the fibres to hairs on the breasts of grebes, birds that soak their chests in water to quench the thirst of their chicks.

This in no way lends support to the notion that dinosaurs evolved into birds, despite what some newspapers said.

24 September p.56 Metamorphosis

Many insects go through a larva stage. Caterpillar eggs hatch and eat vegetation before forming a chrysalis. The genes melt down into a soup and a butterfly emerges to lay eggs. Frog spawn develops into tadpoles that then grow legs and lose their tails to become amphibious. Several marine invertebrates such as jellyfish and hydra also undergo metamorphosis.

Here it is suggested that the **"earliest ancestor of all animals may have resembled a simple jellyfish larva."** Possibly the larval and adult forms were originally separate life forms that got together. **"The larval and the adult forms of marine invertebrates often look like entirely different organisms, perhaps because that is exactly what they used to be."** Yet the initial egg contains all the genetic information for the larval and adult forms, plus the hormones that orchestrate changes. Perhaps they were designed!

A wonderful world

Autumn is a great time to go for a walk in the countryside. Those leaves that have been supplying the trees with growth and breathing oxygen back into the air begin to lose their green and give a breath-taking display of colour; yellow birch leaves and red beech, while evergreens do what it says on the tin.

Chlorophyll is a complex structure rather like one of the four units of the blood chemical haemoglobin, but with magnesium rather than iron at the centre of a haem system with delocalised electrons that give it its reactivity and colour. With the onset of autumn the chlorophyll

diminishes and the underlying yellow and orange pigments are revealed.

The red pigment made by many plants is anthocyanin. Scientists have found that where anthocyanin production is blocked, leaves are vulnerable to sunlight, sending fewer nutrients to the roots for winter storage. Trees in poor soils produce more anthocyanin to compensate, so there must be a feedback mechanism involved. Anthocyanin also protects against damage caused by insects.

As we marvel at the spectacular colours of the season, we can thank the Creator who designed such a necessary mechanism for protecting the trees with such beauty. The structures of these porphyrin compounds with their heterocyclic rings and metal atoms are very specific (of low entropy), making a chance evolution out of the question. A partly formed system is useless and natural selection would eliminate it.
DR

An ornamental *Acer* tree on a country estate. Image: CSM.

Expo news

The accounts for the CSM financial year ending 31/8/2011 showed a drop in our bank balance of just £540. This is despite extra costs totalling over £20,000 for repairs plus expenses involved in complying with new fire and health and safety regulations. We have just applied for Gift Aid on your donations for the period. This means that although the exhibition has been closed, we have more than covered our costs. The Lord is faithful.

Work currently being done includes making exhibits for the new floor and inserting fire-proof glass in doors. Now that the electricity supply has been brought up from the damp basement, we are having the place rewired. A PAT database is also being drawn up, as required by regulations and by insurers.

Please go on praying for our team of workers and volunteers as we approach the end of this difficult period of refurbishment. The Lord plans to give us a future and a hope (Jer. 29:11 NKJV), and that certainly applies to this unique exhibition giving glory to Him as Creator.

Adam and dinosaurs

In the February journal we advertised *Adam ate with Dinosaurs*, an excellent book by CSM member Christopher Tokeley. Unfortunately the publishers, Athena Press, went bust, so we never got the stock we had

ordered and paid for. Now Mr Tokeley has generously sent a supply for sale at £9-99. The book illustrates the incredible accuracy of the Scriptures, and the lack of evidence for a naturalistic origin of everything. Adam was a real man, attested by ancient history, and his fall made necessary the death and resurrection of the Creator, Jesus Christ.

You write...

"I just finished reading Bill Cooper's book entitled, *After the Flood*. I was expecting a dry recitation of genealogies. There is a little bit of that, but overall this work is INCREDIBLE. It was eye-opening and edifying. Every Christian should read this book including the appendices. WOW, WOW and WOW!!! Please tell Bill Cooper THANKS for blessing me with his research, study, work and writings. I will be writing a work soon and intend to quote his book in parts of it. I will also be using this later this year to share in a Sunday class that I teach at my church. An AWESOME book!"
BS

"It was at an Isle of Wight Keswick Convention week that I was given a CSM leaflet. I did not read it for some years, but when I did I started to study Biblical Creation. Slowly over a number of years I came to see and believe how scientific evidence and the Bible fitted together like a zip!"
AW (a pastor working with university students)

Quote

"The very idea that science best expresses its authority through consensus statements is at odds with a vibrant scientific enterprise. Consensus is for textbooks; real science depends for its progress on continual challenges to the current state of always-imperfect knowledge. Science would provide better value to politics if it articulated the broadest set of plausible interpretations, options and perspectives, imagined by the best experts, rather than forcing convergence to an allegedly unified voice."
(*D. Sarewitz*, Naturenews 478, 7 (2011) | doi:10.1038/478007a)

Articles in the Journal are generally by the editor, R. Cambridge, unless otherwise stated. Members' notes, articles, letters, quotations, images and other contributions to the CSM Journal are warmly welcome and may be sent to info@csm.org.uk.

Creation Science Movement

PO Box 888, Portsmouth PO6 2YD, UK

Founded 1932, Registered Charity 801745
www.csm.org.uk; info@csm.org.uk; 02392 293988